



EMERGING & ZOOONOTIC INFECTIOUS DISEASES

Diseases can cross communities and borders, but CDC responds whenever and wherever there is an infectious disease threat. We quickly detect and stop foodborne outbreaks, track and eliminate dangerous infections in hospitals and clinics, investigate deadly viruses and bacteria, prevent germs from spreading to people from animals and insects, protect U.S. communities from communicable diseases from other countries, and discover new or mutated germs while fighting drug-resistant microbes.

KEY ACCOMPLISHMENTS

- Improved diagnostic tests to more rapidly detect and protect people from dengue fever, plague, deadly fungal infections, rabies, and other infectious diseases.
- Continued work on new vaccines, including one for animals against Rift Valley fever and completed a phase 2 clinical trial of a vaccine against dengue fever (see photo on right of *Aedes aegypti* mosquito, which can spread dengue and chikungunya viruses).
- Released a national report providing the first snapshot of the threat antibiotic-resistant germs pose to humans.



Infections Nearly Cut in Half

44% drop in all
central line-associated
bloodstream infections.



1 IN 6

About 1 in 6 (48 million) people in the U.S. gets sick every year from contaminated food.



1 IN 20

Each year, about 1 in 20 patients in the U.S. gets a second potentially life-threatening infection while receiving medical care.



\$77 BILLION

Foodborne diseases cause 48 million illnesses, 3,000 deaths, 128,000 hospitalizations, and up to \$77 billion in total economic costs each year in the U.S.



A CDC scientist examines microscopic slides showing *Exserohilum rostratum* (on screen) during the multistate meningitis outbreak.

STOPPING A KILLER FUNGUS IN ITS TRACKS

Imagine going to the doctor for a routine shot to relieve pain in your neck, and a few weeks later you have a headache, fever, and extreme sensitivity to bright light. That's what happened to a 56-year-old woman from Brentwood, Tennessee, who was healthy and active until she started receiving steroid injections. What she didn't know was the steroids were contaminated with a fungus that made her very sick. She died of her sickness within days.

A contaminated steroid from a pharmacy in New England sickened more than 750 people, including 64 who died, in a deadly 23-state outbreak in the fall of 2012. CDC and state and local health partners quickly determined the source and scope of the outbreak, contacted more than 14,000 patients at risk, and got experts to provide diagnostic and treatment guidance. Public health workers in Tennessee, Virginia, and Michigan rushed to save the lives of exposed patients. CDC's fungus laboratory operated 7 days a week to test hundreds of samples with a newly developed test for this unprecedented infection. Meanwhile, the agency's healthcare-associated infection laboratory worked with the Food and Drug Administration to identify other microorganisms from sealed medication vials.

When the public is exposed to outbreaks caused by poor practices in clinics and pharmacies, CDC and its state public health partners are the first responders. Most often, the outbreaks are caused because these facilities fail to understand or follow proven recommendations and professional standards created to protect the public's health.